Date: Mon, 1 Aug 94 04:30:25 PDT
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>
Errors-To: Ham-Homebrew-Errors@UCSD.Edu
Reply-To: Ham-Homebrew@UCSD.Edu
Precedence: Bulk
Subject: Ham-Homebrew Digest V94 #217
To: Ham-Homebrew

Ham-Homebrew Digest   Mon, 1 Aug 94   Volume 94 : Issue 217

Today's Topics:

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>
Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

Date: Sun, 31 Jul 94 15:39:00 -0400
From: news.sprintlink.net!coyote.channel1.com!channel1!alan.wilensky@uunet.uu.net
Subject: Cb --> 10m anyone he
To: ham-homebrew@ucsd.edu

JH>>DB>By the way, do you have an amateur radio license? Your name
JH>>DB>doesn't seem to be listed in the callbook.

JH>>And your passport...drivers license, birth certificate, ss card, dog
JH>>license, cat license, organ donors card...youre not listed in the
JH>call >book, youre not listed in the callbook,this is a recording of
JH>the >private ham license police state.

JH>Alan, this, together with your code complaints on .policy, is
JH>nauseating. The previous poster had good reason to say what he said.
JH>The FCC dictates that the amateur radio service be self-policing,
JH>meaning we look after ourselves and each other; it's our
JH>responsibility to help keep unlicensed operators off the ham bands.

JH>This thread revolves around converting a CB radio to 10M or there
JH>abouts; CB'ers are moving from 11M to 10.5M and illegally operating.
JH>That the original poster is not listed in the callbook makes some of
JH>us suspicious of his intentions.

I live to make guys like you nauseas. You might try waiting unitl he
actuaaly did something wrong before giving him the shakedown.

Please email me directly for special directions for a bentonite garlic
enema. It will do wonders for your attitude, making you feel less
stuffy.

Alan Wilensky, N1SSO
General Manager
Interactive Workplace Division
Vicom, LTD.
Phone: Edmonton Office
11603 165 St.
abm@world.std.com

¸ CmpQwk #UNREG¸ UNREGISTERED EVALUATION COPY

Date: 31 Jul 94 20:18:03 GMT
From: news-mail-gateway@ucsd.edu
Subject: Crystal Regenerative Receiver?
To: ham-homebrew@ucsd.edu

Receivers of this type are frequently used for single-channel monitors
(i.e. pilot-carrier monitor receivers, etc.)

However, things like 'walky-talkies' use regenerative receivers. These
are typically as broad as a barn door (100's of kilohertz wide...)
and tuned only by the obvious coil that is in the WT. The crystal
has nothing to do with this type of receiver. In fact, the crystal itself
is probably a 3rd overtone...

Regenerative receivers of this type are useful primarily for AM detection
and wideband FM. They radiate a lot of "noise" as well when they operate
and typically, they are not extremely sensitive...

If the Walky-Talkie has only a few transistors, it most likely uses this
type of receiver. The transmitter uses the speaker amplifier for
modulation...

<Clint>

Internet: clint@uugate.aim.utah.edu
Amprnet: ka7oei@uugate.wa7slg.ampr.org

Date: 30 Jul 94 05:06:30 GMT
From: elroy.jpl.nasa.gov!usc!nic-nac.CSU.net!charnel.ecst.csuchico.edu!
yeshua.marcam.com!MathWorks.Com!news2.near.net!news.delphi.com!BIX.com!
jdow@ames.arpa
Subject: Mixer Noise figure Question
To: ham-homebrew@ucsd.edu

donc@qwert.sr.hp.com (Don Cook) writes:

>jdow on BIX wrote:

>
<deleted text>
>Here, the upper and lower sidebands represent noise, but since no AM noise is
>present the upper and lower sidebands are anti-correlated (shown by the lower
>sideband going down). Thus, the upper sideband will mix down to the IF, but
>the lower sideband also mixes down and cancellation occurs.

>Comments?

As a matter of fact yes. Feeding a signal into a mixer stage generally requires SOME form of frequency sensitive network, be it a tuned circuit or a simple RC circuit between a FET's gate and ground. This will upset the phase relations between the upper and lower sidebands. In the past I have gotten best preditions based on total sideband power. (Within a few dB.) But I do note that I dispise single ended mixers if I have the power. Given enough power I go to double balanced quads. This gives even MORE "junk" suppression and generally a modest boost in IP3.

That said I pulled a different design long ago on a "how small can you make it" black world project. I starved the mixer for power. The LO *AND* the signal were both so low power that the noise from the SAW LO was ignoreable in the mixer. It had *LOUSEY* IMD and crossmod and IF rejection and all that. But it was for use where the RF environment was generally less than awful.
{^_^}   Joanne Dow, Editor Amiga Exchange, BIX
     jdow@bix.com
>That being said, I still think the best solution is the balanced mixer.
>Putting a tuned filter on the LO would be tough since it would need to
>be rather narrow-band, and limiting the LO would be more work than just
>getting a nice double balanced mixer.

>Don Cook

Date: Sun, 31 Jul 1994 17:34:00 GMT
From: newsflash.concordia.ca!pavo.concordia.ca!md_hill@uunet.uu.net
Subject: Model rocket telemetry..
To: ham-homebrew@ucsd.edu

In article <31c8i0$84q@acmez.gatech.edu>, gt4879a@prism.gatech.edu (Joel Van Odom) writes...
>Howdy. I need some sort of circuit that can open a switch for about half a
>sec. or so and then close it and then repeat it after about ten seconds.
>Could someone give me an easy diagram for this? Thanks.
>
>P.S. Does anyone know what a varactor diode is and where I can get one?

Use a 556 timer with one timer set for 1/2 sec and the other set for 10 sec.
Then use the outputs in parallel to drive a transistor, relay etc.

A Varactor diode, sometimes called a varicap is a 'diode' who's capacitance
is varied by a DC bias voltage; often used to electronically tune radios. Most
of the major distribs. should carry them i.e. mouser, digi-key etc.

Date: 31 Jul 94 20:35:15 GMT
From: news-mail-gateway@ucsd.edu
Subject: What is this HPThinkjet IC?
To: ham-homebrew@ucsd.edu

Actually, there is nothing particularly tricky about a stepper-motor driver.

I would guess that this stepper has 5 wires: A "common" and 4 others,
one for each phase.

A driver is pretty simple. First, determine the operating voltage of the
motor. Many implementations run the stepper at, say, 24 volts for
high torque and fast stepping, and then reduce the voltage to 5 or 12 volts
to reduce power dissapation.

In the past, I used a 24 volt stepper from an old 8" disk drive and ran it
at 12 volts. This provided plenty of torque and a fast enough stepping
rate for the application (i.e. steering a telescope...)

The stepper driver was very simple: The "common" wire on the motor was tied
to 12 volts (with a 1000uf capacitor, etc...)   A diode is connected
across each winding to quench any back EMF.

I just used an NPN (emitter grounded, 4.7k resistor on the base from a digital (CMOS) driving source. The transistor was nothing special (PN2222... or anything that can switch several hundred milliamps...)

Of course, the driving sequence for the windings must be correct, but I did this by simple lookup table in software. I also designed a circuit using a few gates that converted a simple binary count to the proper sequence for exciting the windings...

<Clint>

Internet: clint@uugate.aim.utah.edu
Amprnet: ka7oei@uugate.wa7slg.ampr.org

End of Ham-Homebrew Digest V94 #217
****